

# REVISION 16

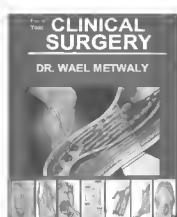
## CARDIOTHORACIC

## NEUROSURGERY

## ANAESTHESIA

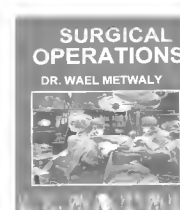
BY DR. WAEL METWALY

### ★ Clinical



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### ★ Operative



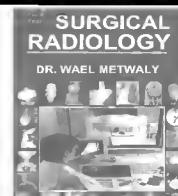
- Management of Sucking chest Wound
- Management of Haemothorax
- Management of Pneumothorax
- Management of # vault
- Management of Head injury

### ★ Jars



- Extra-dural Haematoma

### ★ X-rays



#### ➤ Plain X-ray:

- # RIBS
- Haemothorax
- Pneumothorax
- Fissured # skull
- Depressed # skull

#### ➤ CT Scan :

- Extra-dural Haematoma
- Sub- dural Haematoma
- Brain Tumor

# EXAMS

- A. Anatomy**
- B. Written Questions**
- C. Explanations**
- D. Cases**

## A. ANATOMY

**2002** - Describe the anatomy of the **Middle Meningeal artery**

**(10 Marks)**

## B. WRITTEN QUESTIONS

### 1 CARDIOTHORACIC

**2000**

- Discuss **Post Operative Complications**
- Discuss **ttt. of Cardiac arrest**

**(15 Marks)** دور ثانی

**(10 Marks)**

**2001**

- Discuss C/P & **ttt. of Pneumothorax**
- Discuss **C.P.R**
- Discuss **Traumatic Haemothorax**

**(10 Marks)** دور ثانی

**(10 Marks)** دور ثانی

**(10 Marks)**

**2002**

- Discuss **Post Operative Pulmonary Complications**
- Discuss **Pneumothorax**
- Discuss **Management of Cardiac arrest**

**(15 Marks)** دور ثانی

**(10 Marks)** دور ثانی

**(12 Marks)**

**2003**

- Discuss **Life threatening of chest injuries**
- Discuss **Cardiac Arrest**
- Discuss **Pulmonary Embolism**

**(9 Marks)** دور ثانی

**(9 Marks)** دور ثانی

**(20 Marks)**

**2004**

- Discuss **Post Operative Lung Atelectasis**
- 25 years old man was injured in a motor car accident. the patient was alert but dyspnic , the pulse was 140/min ,ABP 90/60 mmHg & temp 37° c. there were contusions of the Lt. side of chest wall. Abdominal examination was free.

**(20 Marks)** دور ثانی

**What is the management**

**(20 Marks)**

**2005**

- Discuss C/P , investigations & **ttt. of Pulmonary Embolism**
- Discuss C/P & management of **Flail chest**

**(20 Marks)** دور ثانی

**(10 Marks)**

**2006**

- Discuss causes & treatment of **Cardiac Arrest**
- Discuss C/P & management of **Flail chest**
- Discuss ( **Cardio-pulmonary Resuscitation** ) C.P.R

(20 Marks) دور ثانی

(10 Marks)

(10 Marks)

**2007**

- Discuss ( **Cardio-pulmonary Resuscitation** ) C.P.R
- 25 years old man was injured in a motor car accident. the patient was alert but dyspnic , the pulse was 140/min ,ABP 90/60 mmHg & temp 37° c. there were contusions of the Lt. side of chest wall. Abdominal examination was free. **What is the management**

(10 Marks) دور ثانی

(25 Marks)

**2008**

- Discuss ( **Cardio-pulmonary Resuscitation** ) C.P.R
- Discuss C/P & management of **Flail chest**
- Discuss **Cardiac Arrest**

(10 Marks) دور ثانی

(10 Marks) دور ثانی

(10 Marks)

**2009**

- Female patient, has car accident, on investigation she found to have surgical emphysematous Lt. lung. Shiftiness of trachea to Rt. side. The heart is shifted to Rt. side & it's apex is lying between the 2 lungs & sternum. Also we found open wound at the 5<sup>th</sup> Lt. intercostal space.

**What is the management**

(20 Marks) دور ثانی

**2009**

- Discuss **Pneumothorax**

(15 Marks)

## 2 NEUROSURGEY

**1998**

- Diagnosis of **Fractures Base of Skull**

(15 Marks) دور ثانی

**2000**

- Discuss Aetiology & C/P of **Acute Extra-dural Hge**

(10 Marks)

**2001**

- Discuss C/P & treatment of **Fracture Vault Skull**
- Discuss clinical features of **Fracture Ant. Cranial Fossa**

(10 Marks) دور ثانی

(10 Marks)

**2002**

- Discuss **Acute Extra-dural Haematoma**
- Discuss C/P of **Acute Extra-dural Haematoma**

(15 Marks) دور ثانی

(20 Marks)

**2003**

- Discuss Management of **Airway Obstruction with Head Trauma**
- Discuss **Extra-dural Haematoma**

(9 Marks) دور ثانی

(20 Marks)

**2004**

- Give an account on **Glasgow Coma Scale**
- Discuss C/P of **Expanding Intra-cranial Haematoma**

(5 Marks) دور ثانی

(10 Marks)

**2005**

- Discuss management of patient with **Intra-cranial Injuries**.  
**what are factors that cause deterioration of this condition ?**

(25 Marks) دور ثانی

- A 35 year-old-male patient was admitted to the casualty department after a car accident. **The patient was semi-comatose**. The pulse was 110/min & ABP was 120/80 mmHg. Examination of Chest, Abdomen & Limbs was free.

**Discuss initial examination, investigations & treatment.**

(25 Marks)

**2006**

- A 30 year-old-male patient was admitted to the casualty department after a **head injury**. The patient was drowsy, After few hours the level of consciousness started to deteriorate.

- Mention 2 causes for this deterioration.
- Mention investigations & treatment.

(20 Marks) دور ثانی

- Discuss C/P & Management of **Acute Extra-dural Haematoma**

(10 Marks)

**2007**

- Give an account on **Glasgow Coma Scale**

(5 Marks) دور ثانی

- Discuss C/P of **Expanding Intra-cranial Haematoma**

(15 Marks) دور ثانی

- Discuss C/P & Management of **Acute Extra-dural Haematoma**

(10 Marks)

**2008**

- Give an account on **Glasgow Coma Scale**

(10 Marks) دور ثانی

- Discuss C/P, Investigation & Treatment of **Depressed Skull**

(10 Marks) دور ثانی

**2009**

- A young boy, fall from height, come to hospital in coma, on examination, we found to have **watery discharge from his nose**. All vital signs are normal.

**What is your diagnosis & what are other C/P ?**

(10 Marks) دور ثانی

- 29 years male received a blunt trauma to the Lt. side of head. He presented to E.R with Glasgow score 15 but decline to 7 within 1 hour

**What is your diagnosis & treatment?**

(10 Marks)

### 3 NERVE INJURY

**2008**

- Discuss **Ulnar Paradox**

(4 Marks) دور ثانی

**2009**

- 40 years male presented with sensory loss over Rt. thumb, index & middle fingers, 4 months after a cut wound of front of wrist.

**What is your diagnosis & treatment?**

(10 Marks)

## 4 ANAESTHESIA

2001

- Discuss Pulmonary Complications of **General** Anaesthesia

(10 Marks) دور ثانی

2002

- Discuss Complications of **General** Anaesthesia

(12 Marks)

2003

- Discuss Respiratory Complications of **General** Anaesthesia

(9 Marks) دور ثانی

- Enumerate Complications of **Spinal** Anaesthesia

(9 Marks) دور ثانی

2004

- Discuss the available Regimens for **relief of Post-operative Pain**

(15 Marks)

2005

- Discuss **3 Drugs that are used for induction of General Anaesthesia**

(15 Marks) دور ثانی

- Enumerate Respiratory Complications of **General** Anaesthesia & Discuss aetiology, C/P & treatment of one of these complications

(20 Marks)

2006

- Discuss the Regimens for **relief of Post-operative Pain**

(20 Marks) دور ثانی

- Enumerate Complications of **Spinal** Anesthesia.

(10 Marks)

2007

- Enumerate Complications of **General** Anesthesia.

(10 Marks) دور ثانی

- Discuss Complications of **Spinal** Anaesthesia

(10 Marks)

2008

- Discuss **Post-operative Respiratory complications** after **General Anaesthesia**

(10 Marks) دور ثانی

### C. EXPLAIN

### THE FOLLOWING STATEMENTS



#### 1. Tension Pneumothorax leads to Respiratory distress

(2005 – دور اول – Kasr)

(2007 – دور ثانی – Kasr)

- Because the opening in the pleural cavity permits entrance of air during inspiration & prevents its exit during expiration. So the air in the pleural cavity accumulates under tension compressing the lung & displacing mediastinum to opposite side .

#### 3. An Extra-dural Haematoma is a surgical emergency

(2006 – دور ثانی – Kasr)

- Because it leads to stage of compression which may be :
- ① **Early : (Irritation)** headache, irritability, confusion & drowsiness.
  - ② **Late : (Depression)** semi-coma or coma
  - ③ **Finally** decerebrate rigidity → **Death**

## SHORT QUESTIONS ON NEURO-SURGERY

### 1- CAUSES OF DETERIORATION OF THE PATIENT WITH HEAD INJURY

**1. Brain oedema :**

leading to increased intracranial tension

**2. Airway obstruction and / or hypoventilation :**

leading to brain swelling and increased intracranial tension, Respiratory insufficiency can be confirmed by estimating PO<sub>2</sub> and PCO<sub>2</sub>.

**3. Intra-cranial haematoma :**

This can be confirmed by CT scan.

**4. Fever :**

due to respiratory infection or meningitis.

**5. Over-transfusion by hypotonic fluids, or dehydration.**

**6. Epilepsy :**

If not accompanied by convulsions, it is difficult to differentiate epilepsy from an intracranial haematoma.

### 2- FACTORS THAT AFFECT SEVERITY OF CEREBRAL INJURY

**1. Distortion of the Brain :**

Posterior displacement of the cerebral hemisphere leads to distortion at the region of the hypothalamus and brain stem *leading to* temporary loss of consciousness. *while* Anterior displacement of the cerebral hemisphere leads to distortion of the corpus callosum. *leading to* damage to neurons, nerve fibers, galia and blood vessels.

**2. Mobility of the Brain in relation to the Skull and Membranes :**

considerable movement between the brain and the dura leading to more brain damage.

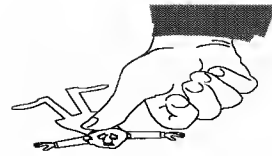
**3. Configuration of the Interior of the Skull :**

Smooth areas of the skull will cause less damage to the underlying brain than rough or sharp areas, e.g. The frontal pole by the rough floor of the anterior cranial fossa.

**4. Age of the patient :**

A young patient will have a better chance of recovery than an elderly one as the functional reserve of the brain is higher.

## D. CASES



### Case [91] ( Lt. Haemothorax )

A 25-years old man was injured in a motor car accident. the patient was alert but dyspnic , the pulse was 140/min , ABP 90/60 mmHg & temp 37°C there were contusions of the Lt. side of chest wall. Abdominal examination was free.

( 2004 – دور أول – KASR )  
( 2007 – دور أول – KASR )

- What is the Management?

### Case [92] ( Rt. Pneumothorax )

A 25-years old man was injured in a motor car accident. the patient was alert but very dyspnic , chest examination revealed hyper-resonance & diminished air entry on the Rt. Side of the chest

( 2004 – دور أول – 6 Oct.)

- What is the Management?

### Case [93] ( Lt. Pneumothorax )

Female patient, has car accident, on investigation she found to have surgical emphysematous Lt. lung. Shiftiness of trachea to Rt. side. The heart is shifted to Rt. side & it's apex is lying between the 2 lungs & sternum. Also we found open wound at the 5th Lt. intercostal space.

(2009 – دور ثانی – Kasr)

- What is the Management?

### Case [94] ( Head Trauma )

A 35 year-old-male patient was admitted to the causality department after a car accident. The patient was semi-comatose. The puls was 110/min & ABP was 120/80 mmHg .Examination of Chest, Abdomen & Limbs was free.

(2005 – دور أول – Kasr)

- Discuss initial examination, investigations & treatment ?

**Case [95] ( Head Trauma )**

**A 30 year-old-male patient was admitted to the casualty department after a head injury. The patient was drowsy, After few hours the level of consciousness started to deteriorate.**

**(Kasr – دور ثانی – 2006)**

- a. Mention 2 causes for this deterioration.
- b. Mention investigations & treatment.

**Case [96] ( Head Trauma )**

**A young boy, fall from height, come to hospital in coma, on examination, we found to have watery discharge from his nose. All vital signs are normal.**

**What is your diagnosis & what are other C/P (Kasr – دور ثانی – 2009)**

**Case [97] ( Head Trauma )**

**29 years male received a blunt trauma to the Lt. side of head. He presented to E.R with Glasgow score 15 but decline to 7 within 1 hour**

**What is your diagnosis & treatment? (Kasr – دور أول – 2009)**

**Case [98] ( Median nerve injury )**

**40 years male presented with sensory loss over Rt. thumb, index & middle fingers, 4 months after a cut wound of front of wrist.**

- Name the injured nerve & explain ? **(Kasr – دور أول – 2009)**
- List the paralyzed muscles & discuss the treatment ?

**بسم الله  
GOOD LUCK**

**Dr. WAEL**